- having a molecular weight between 2,000 and 8,000

- soluble in an aqueous-alcoholic medium (water-ethanol) having a titer of 55-61 GL;

- tending to insolubility in a water-ethanol medium having a higher alcohol content, and insoluble in pure alcohol ;

- having a Yin-Wessler titer higher than 130 units/mg and

- a Yin-Wessler titer and a USP titer respectively in a ratio of at least 13.

C'

70 ~~71~~. Mucopolysaccharides according to claim 69 ~~70~~ having a ratio of Yin-Wessler/USP titiers of the order of 13-16, and a Yin-Wessler titer from 135 to 160 units/mg.

71 ~~72~~. Mucopolysaccharides according to claim 1 wherein said constituents in a gel-filtration operation on a column of gel of polyacrylamide and of agarose, in bead form, of the type marketed under the name ULTROGEL AcA 44, are obtained in the 1.5 litres of eluate which follow the elution of a volume of 2.5 litres, dead volume not included, when the gel-filtration is conducted, at a flow rate of 200 ml/hour, on a column having a diameter of 100 mm and a height of 1 m when the concentration of mucopolysaccharide and the volume of the solution placed on the column have been respectively 50 mg/ml and 37.5 ml.

72 ~~73~~. Mucopolysaccharides according to claim 69 ~~70~~ wherein said constituents in a gel-permeation system on columns filled with silica with a granulometry of 10 to 100 microns, of 250 mm

height and 9 mm diameter, have a retention time of the order of 5.7 to 7.5, notably from 6.6 to 7.0 minutes in such column, when 50 ul of a solution of 1.3 mg/ml of this fraction in a 0.02 M Na_2SO_4 buffer, were placed on this column, and then eluted at a flow rate of 3ml/minute.

73
74. Mucopolysaccharides according to claim 69, wherein said constituents are in the form of salts of at least on physiologically acceptable metal, such as sodium or calcium.

74
75. A process for preparing mucopolysaccharides having a Yin-Wessler titer higher than 130 units/mg and a ratio of Yin-Wessler/USP titiers of at least 13, comprising:

- suspending in an aqueous-alcoholic medium of the water-ethanol type, having a titer comprised between about 55 and about 61 GL, a substance based on heparin or heparinic constituents whose molecular weights range from 2,000 to 50,000, this substance having less thn 1% by weight of inorganic salts,

- separating the insoluble fraction and recevering the solution containing the dissolved mucopolysaccharide fraction, from which it can in its turn be separated by alcoholic precipitation,

- recovering fractions having Yin-Wessler/USP titer ratios of at least 13.

75
76. A process according to claim 74, further comprising the contacting of the recovered fractions with antithrombin III immobilized on a support to produce selective

fixation thereon of fractions having the higher Yin-Wessler activity and recovering the latter by elution with a buffer capable of producing desorption.

76
~~77~~. Pharmaceutical composition comprising a mucopolysaccharide obtainable from heparin or from fractions including heparinic constituents of molecular weight of 2,000 to 50,000 essentially consisiting of constituents :

- having a molecular weight between 2,000 and 8,000
- soluble in an aqueous-alcoholic medium (water-ethanol) having a titer of 55-61 GL ;
- tending to insolubility in a water-ethanol medium having a higher alcohol content, and insoluble in pure alcohol ;
- having a Yin-Wessler titer higher than 130 units/mg and
- a Yin-Wessler titer and a USP titer respectively in a ratio of at least 13.

77 76
~~78~~. Composition according to claim ~~77~~, in the form of a sterile injectable concentrated solution usable in therapeutics for the control of blood coagulation containing from 1,000 to 100,000 U (Yin-Wessler)ml of said mucopolysaccharide, when these solutions are intended for sub-cutaneous injection, or containing again, from 500 to 10,000 u/ml of said mucopolysaccharide it is inteneded for intravenous injection or for perfusion.

78 76
~~79~~. A composition according to claim ~~77~~ in the form of a sterile injectable concentrated solution usable in therapeutics for the control of blood coagulation containing